Analytical Data Package Prepared For

105KE Reactor Characterization

Analysis Provided By

TestAmerica
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TARL

SDG Number: W05895



Certificate of Analysis

105KE Reactor Characterization P.O. Box 1000, T6-03 Richland, WA 99352

May 17, 2010

Attention: John Trechter

SAF Number : D10-010
Date SDG Closed : May 13, 2010
Number of Samples : Four (4)
Sample Type : Wipes
SDG Number : W05895
Data Deliverable : 3/15 Day

CASE NARRATIVE

I. Introduction

On May 13, 2010, four samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned to lot J0E130575 and assigned the following laboratory ID number to correspond with the CHPRC specific ID:

<u>FH ID#</u>	TARL ID#	<u>MATRIX</u>	DATE OF RECEIPT
3	L1GPH	WIPES	5/13/10
5	L1GRX	WIPES	5/13/10
9	L1GT0	WIPES	5/13/10
18	L1GT6	WIPES	5/13/10

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Liquid Scintillation Counting

Tritium and Carbon-14

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

The samples were analyzed as received.

Liquid Scintillation Counting

Tritium:

The LCS, batch blank and sample results are within contractual requirements.

Carbon-14:

The LCS, batch blank and sample results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Seger

Project Manager

W05895

batch_nbr	client ID	work_order_nbr	Sample_count _date_time	H-3 pCi/sample	H-3 LCS %rec	C-14 pCi/sample	C-14 LCS %rec
134141	3	L1GPH2AA	5/16/2010 6:26	1.30E+04		9.84E+03	
134141	5	L1GRX2AA	5/16/2010 6:37	9.86E+03		1.05E+03	
134141	9	L1GT02AA	5/16/2010 6:47	1.36E+04		1.01E+04	
134141	18	L1GT62AA	5/16/2010 6:58	2.83E+03		2.16E+03	
134141		INTRA-LAB BLANK	5/16/2010 7:09	3.56E+00		6.41E+00	
134141		INTRA-LAB CHECK	5/16/2010 7:19	6.88E+01	103%	7.05E+01	104%

		С	HPRC C	CHAIN C	F CUSTODY	/SAMPLE ANALYSIS F	REQUEST	C.O.C. No.			
Collector								Page	of		
Jim Seitz	Contact/Requestor Mary Ann Green Telephone No.						73-1463 MSIN FAX				
CAEN					Sample Origin 105-KE Reactor	r, Port 4B	Purchase Order		NA		
Project Title	Characterization				Logbook No.	-,	Ice Chest No.	Temp.			
Shipped To (Lab				······································	Method of Ship	ment	NA NA				
TestAmerica Protocol					Freight Data Turnaroun		NA				
Per Laboratory	T		,		4 Days for Pro	eliminary Data	Offsite Property	No.			
Sample No.	Lab ID	*	Date	Time	No./Type Container	r	Sample Analysis		Preservative		
83 Hac	119PH	WI	4/17/10	1200	1/Glass vial	C-14 and Tritium		RU 973	NA		
85 4/13/10	LIGIRX	WI	4/17/10	1230	1/Glass vial	C-14 and Tritium		D# 91939	NA		
89 4/13/10	11511	MI	4/17/10	1200	1/Glass vial	C-14 and Tritium		JOE 13057.	NA		
818 H13110	L1617	WI	4/17/10	1200	1/Glass vial	C-14 and Tritium	(DG14058	NA		
		ļ		-				Due 51710			
						·	811 17	* (**) (**)****************************			
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		<u> </u>					, , , , , , , , , , , , , , , , , , ,)L10007.0			
-											
	IPLE HAZARDS/RE					es No SPECIAL INST	RUCTIONS	Hold Time			
45,000 dpm/1	tium contamina .00cm2.	tion	on wipes	, inside	the sample vial	1		NA			
***						E-MAIL preli within 4 day	minary results to Mary Andres. Final report due in 1	n Green 5 days			
							2.	~~,51			
Relinquished By	Print		Sign		Date/Time Re	eceived By Print	Clau	T			
James A	Seitz A	יייט	ass	5/12/	. 17		Sign 5 Date = 5/13	/Time / S = Soil Ds			
Relinquished By		041-0.	. u.z.y	2/13/		eceived By	V	0 00.11	S = Drum Solids = Drum Liquids		
Gerald H Relinquished By	ushe X	r el	116 Na	Z/2		INGE CHARCIC	0-0/000 512	// /335 SO = Solid T	= Tissue		
Relinquished By	777		100	3/2	Date/Time Re	eceived By	medicae 5/3/	The Dialogo VV	I = Wipe		
1								W = Water L O = Oil V	LiquidVegetation		
Relinquished By					Date/Time Re	eceived By	Date	e/Time A = Air X	-		
	Disnosal Method (e	a P	eturn to over	omer norle	b procedure, used in						
FINAL SAMPLE DISPOSITION	Cichogai Metriod (6	.y., r	etuin to cust	omer, per la	o procedure, used in	process) Disposed	3 BY	Date/Tir	me		

RADIOACTIVE SHIP	MENT REC	ORD	3. Page ¹	$_{\rm of}$ 1	4. Ship	Prepaid	5. \	∕ia Mo	otor	
1. SHIP FROM U.S. DEPT. OF E		2. SHIP TO U.S. DEPT. OF ENERGY C/O			6. SHIPMENT AUTHORIZATION N/A					
Company CHPRC	Compan	Company TestAmerica				NUMBER				
Address K Basin	Address	Address 2800 G.Way				7. EMERGENCY RESPONSE				
City, State, Zip Hanford	City, Sta	te, Zip Ricl	hland Wa	ash 99352				373-3800		
Contact Mary Ann Green		Attention	Sample	receivi:	ng		Emerg Guide	jency Re (s)	esponse	
Phone (509) 480-1567		Phone 5	509 375-3	3131			N/A			
HM 8. Proper Shipping Name:								F	PRI HAZ SUB HAZ	UN ID
Material Not	-								N/A	N/A
9. No. Pkg. Model Package 1 N/A N/A	COC/Spec	Serial No.	Seal No.	N/A	Isotop	es	C.S.I.	T.I.	Bq/Package N/A	Gr. Wt. Kg.
10. Identify for Normal Form Only	11. Highwa	y Route Co	ntrolled Qu	antitv		12.		<u> </u>	.S APPLIED	
Physical Form Solid	_ =	ive Use Ship			s	N/A				
	Placaro	ds Applied N	I/A . N1/7	\		13.	ADDITIO	NAL L	ABELS / MARKI	NGS
Chemical Form Elemental	☐ ☐ Fissile	Excepted, G	irams <u>''' / r</u> / A			_ N/A				
8. Proper Shipping Name:		iviaiking				<u> – L.,</u>		PF	RI HAZ SUB HAZ	UN ID
9. No. Pkg. Model Package	COC/Spec	Serial No.	Seal No.		Isotope	es	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
10. Identify for Normal Carry College	11. Highwa			<u> </u>		12.			SAPPLIED	
10. Identify for Normal Form Only Physical Form	Ingilwa	y Route Col ve Use Ship			s	14.		LADEL	S APPLIED	·
-		s Applied _		_		13.	ADDITIO	NAL LA	ABELS / MARKII	NGS
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O Deserve Chinaine Name		Marking				_			21112	10115
** Proper Shipping Name:								PF	RI HAZ SUB HAZ	UN ID
9. No. Pkg. Model Package	COC/Spes	Serial No.	Seal No.		Isotope	es	C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
						146				1
10. Identify for Normal Form Only Physical Form	_ =	y Route Cor ve Use Ship			-	12.	12. LABELS APPLIED			
T Hydrodi T drift		ls Applied _	ment with it	isti action.		_ 13.	-ADDITIO	MALLA	RELS / MADKIN	100
Chemical Form	. —	-	pepted, Grams 13. ADDITIONAL LABELS / MARKIN				103			
		Marking	ring							
	14. Shipment DE	-Ci:			Sł	nipment Tota	s C.S.I.	T.I.	Bq/Package	Gr. Wt. Kg.
15. Surface Dose Rate of Package	Dose Rate @ 1 Meter	from Surface o	of Package	Smears	of Outer Co	ntainer	TRUCK	LOAD (OR EXCLUSIVE	USE
<0.005 or mSv/hr	<0.005 or	m	Sv/hr		3q (220 dpm)		Surface		<2 mSv/hr (200 m	•
<0.5 or mrem/hr (N+ß γ)	<0.5 or	mrem/hr	(N+ß γ)		3q (22 dpm) 2-2 HNF-517		@ 2 mete	_	<0.1 mSv/hr (10 n <0.02 mSv/hr (2 n	,
Additional Data and Instructions (inc. Readings on Internal Packaging)				7 10	2 2 11111 - 0111	o eliinto	or slee		(Using N+ß γ)	111 (111/111)
				Bldg.	1112	Survey No.	1007	15	Date 13 /	1/2
	SPORTER			17.	***		RECEIVE	₹	91137	70
A 112	SIGNATURE	PRINT N		RECEIV	ER SIGNA	TURE	PRINT N	IAME	Date	3 25
3580F Au	WHI- G	ionald 11	zyhes	1/2		1//	Bu	a Car	10 -1	10/1
18. This is to certify that the above	· · · · · · · · · · · · · · · · · · ·			described.	backaged.	marked and	labeled, ar	o <i>c</i>	n proper condition	n for
transportation according to the	applicable regulati Name	ons of the D	epartment	of Transpo	ortation.		Organizati			
NO			On bend	01 002-1	ļ	13 1A	1			
J'Anthan	Sohn H	~5 5 6~			3-	13-10		,		
19.	UDODACT		DRIZATION			Dia Di-	pione (s=-)			
OFFICIAL TION	AIRCRAFT Aircraft Only	PA:	SSENGER Resear		-T al Diagnosis	Pkg. Dimer	isions (cm)			
	s Applied	₹3 T.I.	=	Medical I	J					
20. Survey No.	Date Ship	OF	FSITE AUT	HORIZA	ПОИ				LETA	
	Date Ship	ppeu	Routing						ETA	
Approved for Shipment Offsite									Date	
				The sales of sales of the sales					A-6003-214.	1 (REV 2)



	Sample Check-in List	
	e/Time Received: 5/3/() (a) GM Screen Results (out) 3 (in)	nitials
Clien	ant: 1/1/12 46 5.000 -	
Work	rk Order Number: $\frac{31310}{575}$ SDG#: $\frac{31310}{575}$ SDG#: $\frac{31310}{575}$ SDG#: $\frac{31310}{575}$ SAF#: $\frac{31310}{575}$ Chain of Custody# $\frac{31310}{575}$	<u>) (U</u> NA []
Shipp	oping Container ID: NA [1] Air Bill #	
Item	1 through 5 for shipping container only. <u>Initial</u> appropriate response.	NA[]
1.	Chiefa de Co. 1	
2.	Custody Seals dated and signation	
3.	Chain of Custody record process?	
4.	Cooler towns at 140 [.
Item 6	6 through 10 for samples. <u>Initial</u> appropriate response.	6
6.		
7.	Number of samples in shipping container (Each sample may contain multiple bottles): Sample holding times exceeded?	
8.	Samples have:	
	tape Custody seals hazard labels	1 Anna
9.	Samples are:	A
	in good condition order leaking	,
	have air bubbles (Only for samples requiring head space)	
10.	Sample pH taken? NA [] pH<2 [] pH>2 [] pH>9 [] Amount of HNO3 Added	
11.	Sample Location, Sample Collector Listed? * . *For documentation only. No corrective action needed. Yes No []	
12.	Were any anomalies identified in samula and in	
13.	Description of anomalies (include sample numbers): NA	
		**
C- 1 4	see other side for additional comments	
	Custodian (mg) (PUC) Date: 5/13/10/0/133.	5
	formed on NA by NA Person contacted NA	<u></u>
	No action necessary; process as is.	
	Project Manager Date 5/14/10 Rev. 10, 10/09	,
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